DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

Bay Area Branch
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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 69.15

SOURCE INSPECTION REPORT

Resident Engineer: Pursell, Gary
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: SIR-001452
Date Inspected: 26-May-2009

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island

OSM Arrival Time: 1900
OSM Departure Time: 700
Location: Changxing Dao, Shangha

Quality Control Contact:	William (Bill) Oak	**Quality Control Present:**	☑ Yes ☐ No
Material transfer:	☐ Yes ☐ No ☑ N/A	**Sampled Items:**	☐ Yes ☐ No ☑ N/A
Stock Transfer:	☐ Yes ☐ No ☑ N/A	**OK to Cut:**	☐ Yes ☐ No ☑ N/A
Rebar Test Witness:	☐ Yes ☐ No ☑ N/A	**Delayed/Cancelled:**	☐ Yes ☐ No ☑ N/A
Other:	Coatings Inspection		
Bridge No:	34-0006	**Component:**	East Tower Lift#1, OBG 1AAW, OBG 1AAE
Bid Item:	77, 78, 79	**Lot No:**	B265

Summary of Items Observed:

On this date Caltrans Office of Structural Materials (OSM) Quality Assurance (QA) NACE III coating inspector, Mr. James Lumley arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island in Shanghai, China. The purpose of the coating inspections are to monitor the surface preparation and coating applications for the SAS Bay Bridge project. This QA NACE III coating inspector observed the following:

East Tower Lift#1

De-grease operations interior at diaphragm 18M, worker transference.

OBG 1AAE

Base Metal surfaces were abrasive blasted for VT and chloride testing. Chloride value of 20us/cm were observed re-blasting required after grinding of edges, fins, burrs and arc strikes. MT performed by ZPMC Shang Shou Chen of arc strikes and VT performed by Caltrans QA Erik Prue.

OBG 4AW/Cross Beam 3

Heat affected Zones which exhibited damages from incomplete fabrication base metal surfaces were abrasive blasted to SSPC SP-10 edges were feathered followed by SSPC SP-1 of perimeter area and Interzinc 22 applied. Profile amplitude was 78-82um.

OBG 1AAE

Base metal surfaces were re-inspected after re-blasting occurred, SSPC SP-10 not achieved reblasting required.

Miscellaneous Metal

Base metal surfaces underwent de-greasing and water washing operations on suspender brackets and cable tray sub-assemblies in preparation of abrasive blasting operations.

OBG 1AAE

Base metal surfaces of external surfaces and approximately 50% of internal surfaces were abrasive blasted to an

SSPC SP-10 condition. Profile amplitude was observed at 64-82um, this was the third inspection before SP-10 was achieved.

East Tower Lift #1

Base metal surfaces inside the double diaphragm at 47M confined space area upper portion was abrasive blasted and rejected by ABF QA representative.

OBG L3E, L4E, Weld Seams

Repair areas of heat affected zones previously coated with Interzinc 22 were “mist” coated with Interfine 979.

Cross Beam 4BE

Repair areas of heat affected zones previously coated with Interzinc 22 were “mist” coated with Interfine 979.

East Tower Lift#1

Base metal surfaces inside the double diaphragm at 47M confined space area upper portion was abrasive blasted to an SSPC SP-10 condition and Interzinc 22 applied. This was the second inspection for this area.

OBG 1AAW

MEK testing was performed prior to “mist” coat application and a 5 rating was observed. Dry Film Thickness readings were taken on exterior surfaces and excess film build was observed ZPMC personnel opted to sand off excess coating (Interzinc 22). Intercure 200 HS was also “mist” coated to surfaces which were to be embedded in concrete. ZPMC also applied “mist” coat of Interfine 979 to exterior surfaces as well.

OBG 4BE/4AE

Base metal faying surfaces of counterweight points of attachment were abrasive blasted to SSPC SP-10 condition and Interzinc 22 applied.

OBG 4AE/4BE Cross Beam #5

Heat affected zone repair areas previously coated with Interzinc 22 were over-coated with “mist” coat of Interfine 979.

Note: All inspections were performed jointly with ZPMC & ABF QA/QC representatives and Caltrans QA Lumley. International Protective Coatings technical service representatives Peng ZiLi and Alpha Chen also were in attendance.

Summary of Conversations:

Caltrans QA Lumley concurred with International Protective Coatings Peng ZiLi as he informed ZPMC QC representative that "sanding" excess dry film thickness from exterior surfaces of OBG 1 AAW was not going to prevent mudcracking from occuring and informed ZPMC that abrasive blasting to base metal should be done instead. ZPMC proceeded with the application of Interfine 979 "mist" coat after Caltrans QA Lumley informed ZPMC that mudcracking was not a compliant condition stated within the contract documents Mr. Peng ZiLi stated he agreed.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang.(858) 699-9549, who represents the Office of Structural Materials for your project.

Inspected By: Lumley,James Quality Assurance Inspector

SOURCE INSPECTION REPORT

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Reviewed By: Carreon,Albert QA Reviewer